

FORUM ON THE COST-ESTIMATE STRATEGY

Forum held April 20, 2000,
at the Academy for Educational Development Conference Center
1825 Connecticut Avenue, NW
Washington, DC

Robert Burn

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Rational Pharmaceutical Management Project
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Management Sciences for Health
1515 Wilson Boulevard, Suite 710
Arlington, VA 22209 USA
Phone: 703-524-6575
Fax: 703-524-7898
E-mail: rpm@msh.org

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Contents

Executive Summary	v
Acronyms	vii
Development of the Cost-Estimate Strategy	1
Objectives of the Forum	3
Summary of Presentations.....	5
The Contextual Basis for Applying the Cost-Estimate Strategy	5
The Cost-Estimate Strategy	6
Mother-Baby Package Costing Tool (MBCT).....	7
Q&A Session	7
Practicum	8
Closing Remarks, Issues Raised, and Next Steps	8
An Example of Future Collaboration.....	9
Closing Remarks	9
Appendixes	11
Appendix A. Workshop Agenda.....	A-1
Appendix B. Biographical Information on Presenters	B-1
Appendix C. Evaluation Findings.....	C-1
Appendix D. Participants and Presenters	D-1
Appendix E. Flyers	E-1
Appendix F. Presentation Handouts	F-1
Appendix G. Practicum Exercise	G-1

Executive Summary

In response to the mandate of the 1994 International Conference on Population and Development, governments and donor agencies have placed greater emphasis on supplying commodities necessary for improving reproductive health (RH) care. However, they often lack the information necessary for accurately assessing the quantities and costs of required commodities, information which significantly aids the budgeting, planning, and management of RH programs.

In 1995, representatives of the U.S. Agency for International Development (USAID), the Rational Pharmaceutical Management (RPM) Project, and the MotherCare Project formed the RH Working Group to develop a tool that would assist RH program managers, governments, and the donor community to better estimate the costs of RH commodities. The resulting tool—the Cost-Estimate Strategy (CES)—guides decision making for improving the availability and management of RH commodities by providing a framework for incorporating cost information into policy and program decisions. Following field testing in Kenya and implementation of the CES in Zambia and at a health facility in Kenya, a *User's Guide*, spreadsheet files, and sample survey instruments were finalized and published.

The Cost-Estimate Strategy was officially launched at a Forum for more than 40 participants from bilateral and multilateral donors, nongovernmental organizations, and private voluntary organizations working in the RH field. The Forum was held in Washington, DC, on April 20, 2000.

The rationale for the development of the CES—from both maternal and neonatal health, and drug management, perspectives—was placed in context by speakers from USAID and the RPM Project. Members of the development team then informed the Forum about the structure of the methodology and described the costing tool and survey components in detail. These presentations highlighted the applications of the tool and its potential users.

A representative from the World Health Organization also presented the Mother-Baby Package Costing Tool (MBCT)—a complementary reproductive health program costing tool. The ensuing discussion clarified the complementary nature of the two tools, emphasizing the more focused approach of the CES on commodity issues compared with the more broad-based approach of the MBCT through its inclusion of staff and overhead costs.

Prior to a hands-on practical session, the participants were given a rapid guided tour of the CES spreadsheet-costing tool. The practical session illustrated the ability of the program to derive estimates of commodity costs from detailed treatment information and also raised useful issues about training and spreadsheet expertise requirements.

Both verbally and through an evaluation questionnaire the participants expressed their opinion that the Forum had been an interesting and useful introduction to the Cost-Estimate Strategy. Several also indicated that they expected the tool to contribute to their work.

The program concluded with lessons learned from CES experiences to date, a presentation by the Maternal and Neonatal Health Program on how it hopes to utilize the CES in its work, and proposals on the next steps for the CES project. The latter included refinement of the tool for wider use (other RH services and other health programs), further dissemination of the tool to donor and implementing agencies, and capacity building.

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Acronyms

CAs	cooperating agencies
CES	Cost-Estimate Strategy
JHPIEGO	[health corporation affiliated with Johns Hopkins University]
MBCT	Mother-Baby Costing Tool
MNH	Maternal and Neonatal Health Project
MOH	Ministry of Health
MSH	Management Sciences for Health
NGO	nongovernmental organization
PVO	private voluntary organization
REDSO/ESA	Regional Economic Development Services Office/Eastern and Southern Africa [USAID]
RH	reproductive health
RPM	Rational Pharmaceutical Management [Project]
USAID	U.S. Agency for International Development

Development of the Cost-Estimate Strategy

The United Nations estimates that each year half a million women in developing countries die because they lack access to safe, effective, and affordable reproductive health (RH) services. Participants at the 1994 International Conference on Population and Development identified a clear need for better information and functional tools to accurately assess the quantities and costs of RH commodities. In response, the U.S. Agency for International Development (USAID), the Rational Pharmaceutical Management (RPM) Project, and the MotherCare Project formed a Working Group to develop a tool that would assist RH program managers, governments, and the donor community to better estimate RH commodity needs and financing.

The Cost-Estimate Strategy (CES) can be used to guide decision making by providing a framework for incorporating cost information into policy and program decisions. Field tested in Kenya and applied in Zambia, it has been used?

- By donor agencies to help establish funding for RH services
- To facilitate closer coordination between donors and organizations working in the RH sector
- To heighten awareness of and stimulate discussion about the real costs of offering RH services
- To identify the implications of current commodity availability and use in terms of cost and quality of care
- To develop realistic commodity budgets for RH commodities

Objectives of the Forum

The objectives of the Forum were to increase awareness among reproductive health cooperating agencies (CAs), private voluntary organizations (PVOs), nongovernmental organizations (NGOs), and donor organizations about the potential applicability of CES to their projects and activities through an in-depth orientation.

Through the in-depth orientation, participants gained?

- Background on the development of CES as a methodology for RH
- An understanding of the conceptual framework of the methodology
- “Hands-on” experience in the use of the spreadsheet
- Insight into the synergistic effect of the components of the CES
- Knowledge of the uses of the CES

Summary of Presentations

The Contextual Basis for Applying the Cost-Estimate Strategy

Tony Savelli, Director, Rational Pharmaceutical Management Project

This presentation explained the rationale (interest) in cost issues by linking them to the drug management cycle and proposed that drugs, although effective, are costly and are often not readily available because of limited resources. Although recognizing that systems for supplying drugs are inefficient, Mr. Savelli noted that improvements are possible, as illustrated by data on the effects of therapeutic substitution, increased efficiencies in standard treatment guidelines, and through pooled procurements. The CES is useful because it generates *comparative* information and offers a didactic opportunity, in which local involvement and stakeholder building can improve RH services. The varied entry points for interventions that might be developed through use of the CES were illustrated with reference to the Drug Management Cycle.

Dr. Miriam Labbok, Division Chief, Global Bureau, Office of Health and Nutrition, Nutrition and Maternal Health Division

This presentation addressed the reasons we should be interested in costs and cost-effectiveness in the area of maternal survival programming, commencing with statistical evidence on the magnitude of the problem of reproductive health for women in developing countries. The presentation emphasized that increased effort to improve maternal health was essential for child survival and development. Dr. Labbok highlighted the lessons learned about the causes of maternal and neonatal mortality, what interventions can improve maternal survival, and where they can be applied in relation to the preventive health model.

She described the impetus behind the USAID Maternal and Child Health and Nutrition/Family Planning programs, stressing the need for a “critical mass” of resources and the assurance of affordable services. Future issues and challenges included understanding more fully the true costs of interventions and programs, keeping costs and results in the equation, examining the best balance of medical and medico-preventive approaches, and modeling and testing of costs and results.

Bob Emrey, Acting Division Chief, USAID Global Bureau, Office of Health and Nutrition, Health Policy and Sector Reform Division

Given the background of health reform and system-strengthening activities, the focus needs to be on four key resources—people, money, information, and commodities—required to implement safe motherhood interventions. In achieving health objectives, both health reform and system performance need attention, and the drug management system is clearly one that should be addressed.

Health reformers and managers continue to need tools to better plan programs and reforms designed to enhance the delivery of services. Future steps should also be aimed at improving

links between vertical program managers—for example, in safe motherhood initiatives—and health system management groups, in order to improve overall program implementation and outcomes.

The Cost-Estimate Strategy

Tomoko Fujisaki, Senior Program Associate, Management Sciences for Health (MSH), and Dennis Ross-Degnan, MSH Consultant

Ms. Fujisaki related the concept of the CES to issues of quality of care, financial sustainability, decentralization, and integration of services, and to the fully functional service delivery point paradigm. After explaining that the CES (1) estimates commodity needs, (2) facilitates data-based decision making, and (3) helps to identify problems in the delivery of services and in the supply system, she described the CES tool. The tool consists of the spreadsheet costing model, survey instruments, and drug information. She outlined how the CES could be useful to a number of groups working in the RH field.

The presenter gave a step-by-step introduction to developing the CES costing model, commencing with the selection of RH conditions for analysis. The next step is determining the cost of commodities for the treatment of one episode, and the final step is estimating the total cost of commodities for the target population. The implementation of the CES survey component was outlined and the combined use of both tools was highlighted.

Dennis Ross-Degnan outlined the functions of CES, or “what it does and cannot do,” by explaining how the CES model describes “how things should be,” and the CES survey describes “how things actually are.” He presented the components of the spreadsheet file and described the information needed to complete the model, illustrating this with examples of standard treatment guidelines, drug and commodity lists, and estimates of caseloads. He demonstrated the results and illustrated how to use the CES to model the cost effects of policy decisions. A number of strengths and limitations of the CES model were outlined.

The use of the CES survey to examine how reproductive health services are actually being delivered was described by Ms. Fujisaki. She stressed that determining clear objectives for the survey is essential, and outlined a CES survey sample design as well as the components of the CES survey. Data from the field test in Kenya and the application of CES in Kenya and Zambia were presented to illustrate the kinds of findings that can be obtained from the survey. The strengths of the survey include its contrast with the “theoretical” model (identifies gaps between desired and actual practices) and the tools it can provide for focused monitoring. The survey does require relatively extensive fieldwork and needs-specific expertise during data collection and analysis. Also, difficulties can arise in collecting adequate data from medical records.

Mother-Baby Package Costing Tool (MBCT)

Craig Lissner, Technical Officer, Department of Reproductive Health and Research, World Health Organization (MHO), Geneva

A complementary costing methodology, developed by WHO, was presented by Craig Lissner. WHO developed the tool primarily to enable and facilitate consideration of cost at the national level at an early stage of program development and to provide structured tools for national researchers. When being implemented by local health economists and researchers, typical national objectives would include understanding cost at an early stage of program development, assisting in the design of “essential packages,” supporting budget development and planning, and advocating for rational allocation of resources.

The MBCT has standards for a specific set of health interventions built into it. The tool can then be used to derive the current cost of health services, the cost of service provision in line with the standards of the Mother-Baby Package, and thus determine the incremental cost of bringing current practice in line with standards. The model (based in Excel spreadsheet format) considers “direct,” “recurrent” (direct plus overhead), and “total” (recurrent plus capital) costs. Informational requirements include caseload and referrals, direct costs (drugs, vaccines, supplies, staff time and bed costs), capital costs (facilities, equipment, and transport), and overhead costs (maintenance, support staff, management, and information, education, and communication, or IEC). Cost data can be generated by intervention, input type, service, location, or per client/birth/capita.

Mr. Lissner advised that the MBCT was available from WHO’s Internet Web site and that the users guide would shortly be published.

Mr. Lissner concluded his presentation with a comparative summary of the MBCT and the CES. Both tools are designed for reproductive health issues, although the CES, by being based on a generic testing template, has greater potential in other health areas. The design of the MBCT incorporates a set of WHO-defined reproductive health condition and services and is thus constrained to these. The MBCT generates estimates for a broader range of costs—to include payroll, utilities, and the like? whereas the CES focuses on drugs, medical supplies, and medical equipment.

Q&A Session

Patricia Stephenson, Session Coordinator, Technical Advisor, USAID Global Bureau, Office of Health and Nutrition, Nutrition and Maternal Health Division

During the question and answer session participants raised a number of interesting points regarding specific technical aspects of the CES such as, how to include the costs of equipment in the episodic treatment cost estimate; how to cost continuing equipment needs; and whether the indirect costs of distribution, storage, and procurement were included. Questions about the use of the two tools together also arose.

In responding, presenters proposed that each tool has its own niche or role and that it was doubtful that a single tool could meet everyone's needs. Hence, the CES contributes, along with MBCT, to the universe of information that can be used to improve reproductive health programs and meet strategic objectives.

Practicum

Randy Wilson, Senior Program Associate, MSH/INFORM

The afternoon session commenced with a brief tour of the CES spreadsheet application by Randy Wilson, who explained the setting-up procedure for the treatment sheets and drug, supplies, and medical equipment lists. He further described interpreting the results and how to utilize the model to develop and compare different scenarios (e.g., alternative treatments, source of commodities, and caseload). Mr. Wilson then explained the practical exercise that the attendees could participate in using the computers available in the auditorium and distributed instructions and necessary information to enable them to complete the exercise.

Closing Remarks, Issues Raised, and Next Steps

Dennis Ross-Degnan summarized the Cost-Estimate Strategy approach, highlighted some key lessons learned from the experience of using the tool, and suggested some future directions.

Key Contributions of the CES Approach

The CES uses standard treatment guidelines to build systematic analysis, which provides a rational basis for planning in country- and setting-specific situations. Implementation of the methodology promotes interdisciplinary discussion. The CES can highlight problems in clinical policies, data systems, commodity supply, procurement, and provider training.

Problems in the CES Approach

One problem in the CES approach is that noncommodity costs of providing and improving services are ignored. There can be conceptual and technical issues in focusing on specific health problems. For example, most commodities are not finely tuned to specific health conditions, and vertical programs. There may also be a need for more user-friendly software for CES survey data input and analysis.

Areas for Future Development

Potential areas for future development include

- Exploring the use of CES to compare different sectors (e.g., governmental, NGO) or geographic settings

- Extending the use of CES to other service packages (e.g., critical care for neonates, or care for HIV-infected women and children)
- Additional modeling of the effects of policy changes (e.g., a shift from home to facility-based delivery, or changes in RH treatment algorithms)

An Example of Future Collaboration

Melahi Pons, Director of Health Finance, JHPIEGO/MNH

Following an introduction to the Maternal and Neonatal Health (MNH) Project and an overview of MNH's health financing strategy, Ms. Pons described the potential applications of cost-estimation tools to the achievement of MNH Project objectives. MNH has a five-year goal of increasing the use of key maternal and neonatal health practices and services, and it aims to maximize the benefits of limited existing resources, as well as to mobilize new resources for essential maternal health and nutrition activities.

Ms. Pons proposed that Ministries of Health (MOHs), maternal and neonatal health district managers, and community advocates for maternal and neonatal health are all potential users of the CES. She foresaw them using the tool to assist in rationally allocating scarce resources, to support requests for funding for maternal and neonatal health, and to generate accurate cost information to create and sustain community financing schemes. Additionally, MOHs could use the tool to assist in the design of cost-effective standard treatment guidelines.

Closing Remarks

Susan Bacheller, Pharmaceutical Management Advisor, USAID Global Bureau, Office of Health and Nutrition, Health Policy and Sector Reform Division

The Forum was closed by Susan Bacheller, who reviewed the day's agenda and addressed the question "Where do we go from here?"

Under ongoing development and refinement she saw opportunities to extend the CES to cover other reproductive health/maternal health conditions and services. Consideration should be given to the software development of the tool. The application of the CES to other program areas needs to be investigated. Furthermore, there should be a continuing sharing of information and experiences about the use of the CES.

There should be further marketing and dissemination of the uses and application of the CES, country findings, and lessons learned, and efforts should be made to identify appropriate users among the donor, nongovernmental organization, private voluntary organization, and host country communities.

She acknowledged the contributions of a number of groups and individuals, including REDSO/ESA and Africa Bureau of USAID, the Rational Pharmaceutical Management and

MotherCare Projects, the United States Pharmacopeia, the World Health Organization, and host country counterparts.

Appendixes

Appendix A. Agenda

Appendix B. Biographical Information on Presenters

Appendix C. Evaluation Findings

Appendix D. Participants and Presenters

Appendix E. Flyers

Appendix F. Presentations

Appendix G. Practicum Exercise

Appendix A. Workshop Agenda

Agenda Forum on the Cost-Estimate Strategy

Academy for Educational Development Conference Center, Academy Hall
1825 Connecticut Avenue, NW
Washington, DC ~ April 20, 2000
8:30 am - 5:00 pm

<i>TIME</i>	<i>TOPIC</i>	<i>SPEAKER/PRESENTER</i>
8:30-9:00	Welcome	Tony Savelli, Director RPM
	Costing and Maternal Health Health Reform and System Strengthening	M. Labbok, Div Chief NMH R Emrey, Div Chief Health Policy Sector Reform
	Outline of day's agenda/Introductions	Robert Burn, RH Program Manager RPM
9:00-9:45	Overview of Cost-Estimate Strategy <ul style="list-style-type: none"><input type="checkbox"/> Conceptual approach<input type="checkbox"/> Model(s)<input type="checkbox"/> Survey<input type="checkbox"/> Model and Survey combined<input type="checkbox"/> Drug Information	Tomoko Fujisaki, MSH
9:45-10:30	Uses of the CES Model– what it can and cannot do.	Dennis Ross-Degnan (Harvard Medical School)
10:30-10:45	<i>Refreshment break</i>	
10:45-11:30	Findings from the Survey	Dennis Ross-Degnan/Tomoko Fujisaki
11:30-12:15	Mother-Baby Costing Tool	Craig Lissner, WHO
12:15-12:45	Q&A session on costing tools	Moderator—P Stephenson, USAID
12:45-13:45	<i>Lunch</i>	
13:45-15:45	Practicum <ul style="list-style-type: none"><input type="checkbox"/> Setting up the treatment sheets<input type="checkbox"/> What-if scenarios<input type="checkbox"/> Interpreting the results<input type="checkbox"/>	Randy Wilson (MSH)
15:45-16:00	<i>Refreshment Break</i>	
16:00-16:30	Key lessons from the applications of CES	Tomoko Fujisaki/Dennis Ross-Degnan
16:30-16:45	Future applications for CES Discussion	Mel Pons (Maternal and Neonatal Health)
16:45-17:00	Close Evaluation	Susan Bacheller, USAID

Appendix B. Biographical Information on Presenters

Forum on the Cost-Estimate Strategy (CES)

Presenters

Tomoko Fujisaki is the Senior Program Associate for Management Sciences for Health (MSH), Boston, MA. At MSH, Ms. Fujisaki plans and manages technical and administrative tasks to implement projects to address management issues in the pharmaceutical sector of developing countries. In addition, she oversees projects that include USAID Rational Pharmaceutical Management (i.e., Hungary country program, development of management tools for reproductive health commodities, and evaluation of UNICEF's and the Nippon Foundation drug revolving fund program in Vietnam). In 1991, Ms. Fujisaki joined the World Health Organization (WHO) where she worked as a Program Officer. During that time, she advised regional offices and technical divisions of the WHO on policy directions of agencies and organizations of the UN system regarding health and humanitarian activities. Before joining WHO, Ms. Fujisaki worked for the United Nations High Commissioner for Refugees (UNHCR) in Hong Kong as an Assistant Field Officer and Counselor.

Craig Lissner has been working in the United Nations system since 1981, and in WHO's reproductive health programme since 1993. He received a Bachelor's degree in Economics from Connecticut College in 1982 and a Master's degree in Business Administration from the Wharton School of the University of Pennsylvania in 1988. He joined the United Nations in 1981 with the UN Food and Agriculture Organization, where he carried out research on poverty and food security. He continued this work at the World Bank, where he contributed to a World Bank policy statement entitled *Poverty and Hunger*, which was published in 1985. In 1985, he joined WHO, where he has worked with the Action Programme on Essential Drugs, the Global Programme on AIDS, and the WHO Safe Motherhood Programme. In the Department of Reproductive Health and Research, Craig is currently responsible for the work of the Department relating to the economics and financing of reproductive health programmes.

Melahi Pons has worked in public sector planning and management for 15 years, 10 years of which was as a senior manager of the Philippine Department of Health (DOH). As Director of DOH, she took leadership in the development of management information systems, served as Project Manager of the USAID-assisted Health Finance Development Project and organized the Health Policy Development Staff. As Assistant Secretary, she initiated systems improvement in the budgeting, financial control, and procurement processes of the DOH.

Dennis Ross-Degnan is a member of Harvard University's Drug Policy Research Group, where he conducts a program of quantitative and qualitative research on the evolution and impacts of pharmaceutical policies, factors underlying appropriate use of medicines, and behavioral strategies to improve quality of care. Dr. Ross-Degnan is a co-founder of the International Network for Rational Use of Drugs (INRUD), an active consortium of

academics, health managers, and policy makers in Africa and Asia involved in developing and testing interventions to improve pharmaceutical use in developing countries.

Randy Wilson has provided consultancy support in systems analysis, system specification, programming, and training for several of MSH's MCHIFP projects, including Pakistan Child Survival, Afghanistan Health Sector Support, Rwanda Child Survival and Family Planning, Nigeria Family Health, and Turkey First Health Projects. From 1987 to 1990, he managed the Information Support Services Division of OXFAM UK's Research and Evaluation Unit, where he performed systems analysis, hardware and software evaluation, and development of microcomputer applications using Ingres, Clipper, Dbase II+ and QuattroPro. From 1984 to 1987, Mr. Wilson managed OXFAM's public health program in the two Kasai regions of central Zaire. He identified local and regional health initiatives, evaluated their viability, and followed up on progress once funding was secured. He also coordinated OXFAM's work with other agencies (e.g., Department of Health, UNICEF, USAff), Peace Corps, and country missions), advocating Primary Health Care through training sessions and dissemination of information, and providing technical advice to health projects. In addition to his current position as Systems Analyst/Internal Support Coordinator with the MSH MIS Program, Randy Wilson serves as MIS and Logistics Specialist for the USAID-funded APPROPOP Project in Madagascar. He holds an MPH in Health Planning and Administration and is fluent in French.

Guest Speakers

Anthony Savelli is the Director of the Rational Pharmaceutical Management (RPM) Project of Management Sciences for Health (MSH).

Miriam Labbok is the Division Chief for the USAID Global Bureau, Office of Health and Nutrition, Nutrition and Maternal Health Division.

Bob Emrey is the Acting Division Chief for the USAID Global Bureau, Office of Health and Nutrition, Health Policy and Sector Reform Division.

Robert Burn is a Senior Program Associate for the Rational Pharmaceutical Management (RPM) Project of Management Sciences for Health (MSH).

Patricia Stephenson is a Technical Advisor for the USAID Global Bureau, Office of Health and Nutrition, Nutrition and Maternal Health Division.

Susan Bacheller is a Pharmaceutical Management Advisor for the USAID Global Bureau, Office of Health and Nutrition, Health Policy and Sector Reform Division.

Appendix C. Evaluation Findings

Eleven participants completed the feedback form (see page C-2).

- In general the participants expressed satisfaction with the Forum, its content and organization. A number mentioned the usefulness of having the MBCT also presented as this provided an opportunity to compare the two tools.
- The Forum met expectations of 90% of respondents.
- Several commented that the morning sessions describing the tool and what it can and cannot do were the most informative.
- Nearly 40% found the practicum to be the most useful session and might have allocated more time to it, though another 18% found this activity to be the least useful.
- 45% would have improved the Forum by allocating more time to the practical activity.
- 73% feel that they now understand the objectives of the CES methodology and the opportunities it presents.
- About half of respondents thought that there might be opportunities to use the CES in their work.

**Forum on the Cost-Estimate Strategy (CES)
Feedback Form**

What is your experience of, or involvement with, reproductive health commodity management?

How did you hear about the Forum?

What were your expectations of the Forum?

Did this Forum meet your expectations? Why or why not?

What did you find most useful?

What did you find least useful?

How do you think the Forum could be improved?

Do you feel you now understand the objectives of the CES methodology and the opportunities it presents?

Do you plan to use CES in your work? If yes, how?

Would you like more information on CES? If so, please include contact information.

Any additional comments on the event?

Appendix D. Participants and Presenters

Participants

Name	Affiliation
1. Annette Bongiovanni	USAID
2. Patricia Stephenson	USAID
3. Sangeeta Raja	JSI
4. Steve Kinzett	JSI
5. Sandhya Rao	JSI
6. Lloyd Welter	USP
7. Dana Gelfeld	JSI
8. Rebeckah Johnston	JSI
9. Erin Mielke	AVSC
10. Suzanne Jessop	JSI
11. Holly Fluty Dempsy	USAID
12. C. Jo Hinkriks-Stolker	World Bank
13. Tony Boni	USAID
14. Christine Onyango	MNH
15. Lisa Luna	PLAN
	International
16. Henia Dakkak	International
	Medical Corps
17. Penelope Nestel	ILSI
18. Carlos Indacochea	Independent
19. Elsa Gomez	PAHO
20. Ann Levin	ABT
21. Christie Billingsley	MEDS
	Project/LTG
22. Marian Abernathy	IPAS
23. Dr. Amalia Del Riego	PAHO
24. Stan Bernstein	UNFPA
25. Susan Rich	Wallace Global
	Fund
26. Mark Rilling	USAID
27. Patrick Friel	UNFPA
28. Lisa Luchsinger	USAID
29. Bill McGreevey	The Futures
	Group
30. John Crowley	USAID
31. Della Dash	USAID
32. Mel Pons	MNH
33. Carolyn Gibb Vogel	PAI
34. Angelica Velsaquez	PAHO
35. Yoshimi Nishimo	Challenge One
	Associates Inc.
36. Jason Smith	FHI
37. Dr. Lalla Toure	Consultant
38. Susan A. Otchere	NGO Networks
	for Health

Presenters and Organizers

Name	Affiliation
1. Miriam Labbok	USAID
2. Bob Emrey	USAID
3. Susan Bacheller	USAID
4. Tony Savelli	MSH
5. Craig Lissner	WHO
6. Tomoko Fujisaki	MSH
7. Dennis Ross Degnan	Harvard
	University
8. Randy Wilson	MSH
9. Robert Burn	MSH
10. Kara Suter	MSH
11. Dennis Zambrana	MSH
12. Gretchen Hurley	MSH

Appendix E. Flyers

- Cost-Estimate Strategy
- The CES Models: Spreadsheets for Assessing the Cost of Reproductive Health Commodities
- Potential CES Applications
- CES Field Test in Kenya
- Implementing the CES in Zambia

Appendix F. Presentation Handouts

- Forum on the Cost-Estimate Strategy:
Mr. Tony Savelli
- Why We Should Be Interested in the
Costs and Cost-Effectiveness of
Maternal Survival Programs:
Dr. Miriam Labbok
- Cost-Estimate Strategy Overview:
Ms. Tomoko Fujisaki
- Using CES: What It Does and Cannot
Do: Dr. Dennis Ross-Degnan
- The CES Survey: Examining How RH
Services Are Actually Being Delivered:
Ms. Tomoko Fujisaki
- Mother-Baby Package Costing
Spreadsheet: Mr. Craig Lissner
- The CES Approach: Key Lessons and
Future Directions:
Dr. Dennis Ross-Degnan
- Maternal and Neonatal Health:
Ms. Melahi Pons
- Summary and Close: Ms. Susan Bacheller

Appendix G. Practicum Exercise

Exercises for CES Spreadsheet model

Note: For most of these exercises, make the required changes, then press update cost estimate sheet to note the results. On the exercise sheet, record the result of the change for the overall total cost from the cost estimate sheet.

- 1) Open the country example and go to the Cost Estimate sheet. Note the total cost for Scenario A at right.

 - a) Add a treatment cost sheet for Urinary Tract Infection. (*STG sheets*)
 - b) See the attached drug cost estimate sheet to include the following Drug:
level 1: Cephalexin 500 mg 2 x per day x 5 days (10% of pregnant women are likely to be treated)
(HINT: add the drug on the drug page first. CEPHALEXIN, 250 MG:TAB \$3.40 pack of 100, local price 4800 *Drug page*)
 - c) Add information to the epidemiology sheet for the ANC target population for this condition (*Epidemiology page*)
 - d) Update the cost estimate sheet to see the effect of the change. Enter the total cost for Scenario A here.
- 2) Change exchange rate and cost to use from US\$, to Local Median. (*Home page*). Enter total cost at right.
- 3) Increase drug and supply costs for paracetamol and gentamicin sulfate by 50% (*Drugs & Supplies pages*). Enter the total cost at right.
- 4) Modify epidemiology data (*Epidemiology page*)
 - a) Increase Total population for Scenario A by 20%. Write the total cost at right.
 - b) Change one of the percent figures to an absolute number. Enter the total cost at right.
- 5) Pivot table exercise: Display drug requirements for different levels. (*Drugs by level page*) (Hint: remember to refresh the pivot table data before completing these exercises.)
 - a) Write the total drug cost for all levels at right.
 - b) Write the total drug cost just for level 1 at right.
- 6) Delete a treatment cost sheet from the middle of the set (*STG sheets*). (Trap: Don't forget to correct the Epidemiological data on the *Epidemiology page*!!!) Write the Total cost for Scenario A at right.
- 7) Change the availability of Non-Referred Surgery from level 3 to level 2 and 3. What is the effect on equipment costs? (*Facilities page*)
 - a) What was the total Equipment cost before the change?
 - b) What is the total Equipment cost after the change?
- 8) **Extra credit** Graphing: Create a graph which compares the total cost of treatment by health problem. (Hint, use the *Graphs page*).